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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,599	09/18/2003	Hisashi Takiguchi	36856.1125	8547

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EXAMINER

NGUYEN, TUYEN T

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,599

Applicant(s)

TAKIGUCHI ET AL.

Examiner

TUYEN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/18/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art of figures 10-13 [AAPA] in view of Konno [JP 05-036538] and Ikeuchi [US 5,359,150].

AAPA discloses an igniter transformer for a high density discharge lamp comprising:

- a magnetic core [21];
- an edgewise wound secondary coil [22] wound about the magnetic core;
- a bobbin [24]; and
- a ribbon primary coil [23] wound about the bobbin and substantially perpendicular to an axis of the secondary coil and surrounding the secondary coil, wherein the primary coil having a high-voltage terminal [23a] and closely coupled to the secondary winding.

AAPA discloses the instant claimed invention except for the edgewise wound secondary coil formed of a flat multi-core wire.

Konno discloses a transformer [figure 1] comprising:

- a magnetic core [1]; and
- at least one edgewise wound coil [2] wound about the magnetic core, wherein the coil formed of a ribbon wire.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ribbon wire for the edgewise wound secondary coil of AAPA, as suggested by Konno, for the purpose of reducing the distribution capacity.

AAPA in view of Konno discloses the instant claimed invention except for the specific of the ribbon wire.

Ikeuchi discloses a flat multi-core wires ribbon [figure 6] for a coil structure comprising: a plurality of single-round core [8] disposed substantially parallel to one another in a common plane, each of the round single-core wires includes an insulating coating [4] around a periphery of the round single-core wire and a fusible layer [9] over the insulating coating, the flat multi-core wire includes the plurality of round single-core wires consolidated by fusing the fusible layers of the round single-core wires.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the flat multi-core wires ribbon of Ikeuchi for the edgewise wound secondary coil of AAPA, as modified, for the purpose of preventing the single-core wires from being deformation upon shifting or separation from each other.

Regarding claim 6, the specific elliptic cross-section of the magnetic core would have been an obvious design consideration based on the intended applications/environments.

Regarding claims 7-8, NiZn and MnZn are well known material for magnetic core in transformer/inductor.

Regarding claim 12, AAPA discloses the primary coil wound on the bobbin surrounding the secondary coil substantially perpendicular to the axis of the secondary coil such that an outer surface of the bobbin faces larger surface of the primary coil.

Regarding claims 14-15, the specific numbers of the single-core, the material of the core wires, and its diameter would have been an obvious design consideration for the purpose of controlling the inductance of the device.

Copper is a well known material for coil/winding.

Regarding claims 17-18, the specific method winding of the primary coil would have been an obvious design consideration for the purpose of facilitating manufacture.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Konno and Ikeuchi as applied to claim 1 above, and further in view of Iwama [JP 01-110714].

AAPA in view of Konno and Ikeuchi discloses the instant claimed invention except for an insulating film disposed between an outer surface of the magnetic core and an inner surface of the secondary coil.

Iwama discloses a transformer comprising;

- a magnetic core [8] having an insulating film [10] formed thereon; and
- a coil [6] wound directly on the insulating film.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include an insulating film between the magnetic core and the secondary coil of AAPA, as modified, as suggested by Iwama, for the purpose of providing insulation.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Tanigawa et al. [US 5,621,636] ; McGrane [US 5,504,469] and Dickens et al. [US 4,583,068].

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTN *TTN*

Tuyen T. Nguyen